



PTO/SB/21 (08-03)

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TRANSMITTAL FORM

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		Application Number	10/657,533
		Filing Date	September 8, 2003
		First Named Inventor	Hector F. DeLuca
		Art Unit	
		Examiner Name	
Total Number of Pages in This Submission	6+	Attorney Docket Number	1256-00921

ENCLOSURES (Check all that apply)

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Firm or Individual name	Thomas M. Wozny, Reg. No. 28,922 Andrus, Sceales, Starke & Sawall, LLP
Signature	
Date	December 9, 2003

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No. : 10/657,533
Applicant : Hector F. DeLuca et al
Filed : September 8, 2003
Title : 2-Methylene-19-Nor-
20(S)-25-Methyl-1 α -
Hydroxycalciferol and
Its Uses

TC/A.U. :
Examiner :

Docket No. : 1256-00921

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) Dorothy A. Hauser December 9, 2003
) Dorothy A. Hauser Date

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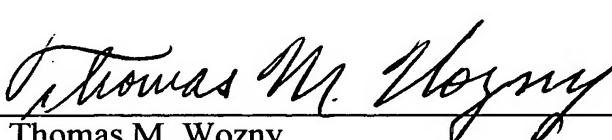
The references listed on the enclosed PTO Form 1449 are being submitted in the above-identified patent application in accordance with 37 CFR 1.97(b)(3).

A copy of each of the listed references is enclosed in compliance with the rules.

Respectfully submitted,

ANDRUS, SCEALES, STARKE & SAWALL, LLP

By



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PTO/SB/08A (08-03)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 4

Application Number	10/657,533
Filing Date	September 8, 2003
First Named Inventor	Hector F. DeLuca
Art Unit	
Examiner Name	
Attorney Docket Number	1256-00921

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 5,945,410	08/31/1999	DeLuca et al	
		US- 5,936,133	08/10/1999	DeLuca et al	
		US- 5,877,168	03/02/1999	Miyamoto et al	
		US- 5,849,726	12/15/1988	Brenner	
		US- 5,846,960	12/08/1998	Labrie	
		US- 5,843,928	12/01/1998	DeLuca et al	
		US- 5,843,927	12/01/1998	DeLuca	
		US- 5,817,648	10/06/1998	Kutner et al	
		US- 5,587,497	12/24/1996	DeLuca et al	
		US- 5,578,587	11/26/1996	DeLuca et al	
		US- 5,536,713	07/16/1996	DeLuca et al	
		US- 5,246,925	09/21/1993	DeLuca et al	
		US- 5,237,110	08/17/1993	DeLuca et al	
		US- 5,089,641	02/18/1992	DeLuca et al	
		US- 5,086,191	02/04/1992	DeLuca et al	
		US- 4,666,634	05/19/1987	Miyamoto et al	
		US- 4,800,198	01/24/1989	DeLuca et al	
		US-			
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FOREIGN PATENT DOCUMENTS

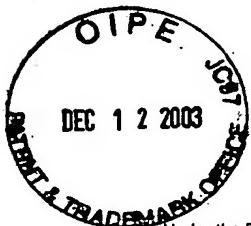
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
		0184206	12/1985	Europe		
		0078704	04/1987	Europe		
		0387077	09/1990	Europe		
		0474517	11/1992	Europe		
		0480572	04/1992	Europe		
		0516410	12/1992	Europe		

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Sheet 2 of 4

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Application Number	10/657,533
		Filing Date	September 8, 2003
		First Named Inventor	Hector F. DeLuca
		Art Unit	
		Examiner Name	
		Attorney Docket Number	1256-00921

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
		WO90/09991	09/1990	PCT		
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Substitute for form 1449/PTO				
Sheet 3 of 4				Attorney Docket Number 1256-00921

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Chemical Abstracts, XP-002066055, Vol. 121, No. 21, November 21, 1994.	
		Posner et al, "2-Fluoroalkyl A-Ring Analogs of 1,25-Dihydroxyvitamin D3-Stereocontrolled Total Synthesis via Intramolecular and Intermolecular Diels-Alder Cycloadditions. Preliminary Biological Testing", Journal of Organic Chemistry, 60, pp. 4617-4628, 1995.	
		Slatopolsky et al, "A New Analog of Calcitriol, 19-Nor-1,25-(OH)2 D2 Suppresses Parathyroid Hormone Secretion in Uremic Rats in the Absence of Hypercalcemia", American Journal of Kidney Disorders, 26(5), 832-60, 1995.	
		Posner et al, "Stereocontrolled Synthesis of a Trihydroxylated A Ring as an Immediate Precursor to 1Alpha,2Alpha,25-Trihydroxyvitamin D3", Journal of Organic Chemistry, 56, pp. 4339-4341, April 15, 1995.	
		Chemical Abstracts, "Chemistry of Synthetic High Polymers", Vol. 110, No. 10, Abstract 110: 82505v, March 6, 1989.	
		Okano et al, "Regulatory Activities of 2Beta-(3-Hydroxypropoxy)-1Alpha,25-Dihydroxyvitamin D3. A Novel Synthetic Vitamin D3 Derivative on Calcium Metabolism", Biochemical and Biophysical Research Communications, Vol. 163, No. 3, pp. 1444-1449, September 29, 1989.	
		Bouillon et al, "Biological Activity of Dihydroxylated 19-Nor-(Pre)Vitamin D3", Bioactivity of 19-Nor-Pre D, Vol. 8, No. 8, pp. 1009-1015, 1993.	
		Sarandeses et al, "Synthesis of 1Alpha,25-Dihydroxy-19-Norpervitamin D3", tetrahedron Letters, pp. 5445-5448, April 1992.	
		Perlman et al, "1Alpha,25-Dihydroxy-19-Nor-Vitamin D3. A Novel Vitamin D-Related Compound with Potential Therapeutic Activity", Tetrahedron Letters, Vol. 31, No. 13, pp. 1823-1824, February 1990.	
		Baggiolini et al, "Stereochemical Total Synthesis of 1Alpha,25-Dihydroxycholecalciferol and 1Beta,25-Dihydroxyerocalciferol", Journal of Organic Chemistry, 51, pp. 3098-3108, 1986.	

Examiner Signature	Date Considered
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/657,533
				Filing Date	September 8, 2003
				First Named Inventor	Hector F. DeLuca
				Art Unit	
				Examiner Name	
Sheet	4	of	4	Attorney Docket Number	1256-00921

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
		Kiegiel et al, "Chemical Conversion of Vitamin D3 to its 1,25-Dihydroxy Metabolite", Tetrahedron Letters, Vol. 31, No. 43, pp. 6057-60660, 1991.		
		Sicinski et al, "New 1Alpha,25-Hydroxy-19-Norvitamin D3 Compounds of High Biological Activity: Synthesis and Biological Evaluation of 2-Hydroxymethyl, 2-Methyl, and 2-Methylene Analogues", Journal of Medical Chemistry, 41, pp. 4662-4674, 1998.		
		Brown et al, "New Active Analogues of Vitamin D with Low Calcemic Activity", Kidney International, Vol. 38, Suppl. 29, 1990, pp. S-22-S-27		
		Hareau et al, "Asymmetric Synthesis of 1Alpha,25-Dihydroxyvitamin D3 A-Ring Precursor Starting with 5-Tert-Butyldimethylsiloxy-2-Cyclohexenone", Tetrahedron Letters, 41, 2000, pp. 2385-2388		

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